

Application No.: 09/853,658  
Response to OA of 06/15/05

### Remarks

In the present response, Applicants remove "steps of" and similar recitations to broaden the claims. No new matter is entered. Claims 1-19 are presented for examination.

#### I. Objection to the Specification

The specification is objected to because of informality. Applicants amend the specification as suggested by the Examiner.

In light of the amendments, Applicants respectfully request withdrawal of this objection.

#### II. Claim Rejections: 35 USC § 101

Claims 1-19 are rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter. Applicants respectfully traverse.

The Office Action presents two arguments. First, Office Action contends that claims 1, 7, and 13 are not within the technological arts. Applicants amend claims 1, 7, and 13 to be within the technological arts. For example, claim 1 is amended to recite a Beauregard preamble (See *In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995)). Claim 7 is amended to recite a "method of software execution" and claim 13 is amended to recite a "computer implemented method." Applicants respectfully assert that these preambles are within the technological arts within the meaning of § 101.

Second, the Office Action contends that claims 1, 7, and 13 do not produce a useful, concrete, and tangible result. Applicants amend each of these claims to produce a useful, concrete, and tangible result. For example, claim 1 is amended to recite "using the plurality of meta-segments to design a promotional campaign." Claim 7 now recites "developing an advertising campaign with information from the meta-segments." Also, claim 13 now recites "optimizing a promotional campaign from information of the meta-segments." Applicants respectfully assert that these limitations are within the meaning of § 101.

In light of the amendments, Applicants respectfully request withdrawal of these rejections.

Application No.: 09/853,638  
Response to OA of 06/15/05

### **III. Claim Rejections: 35 USC § 103**

Claims 1-19 are rejected under 35 USC § 103 as being unpatentable over an article by Richards in view of an article by Cohen. This rejection is traversed.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Applicants assert that the rejection does not satisfy these criteria.

#### **All Elements Not Taught or Suggested**

All of the elements of the claims are not taught or suggested in Richards in view of Cohen. By way of example, limitations from independent claims 1, 7, and 13 are discussed.

#### **Claim 1**

Claim 1 recites segmenting customers into a plurality of segments for each promotion in a plurality of promotions. The customers are further separated into meta-segments. Each meta-segment represents "a second respective group of customers sharing a same response to all promotions in said plurality of promotions" (emphasis added). Thus, customers in each meta-segment share a same response to all of the promotions. Richards in view of Cohen does not teach or suggest this limitation.

Richards teaches segmenting customers based on their response to promotions. A typical customer in a segment is then described by his or her demographics. Richards explains:

By segmenting consumers instead by their responsiveness to promotion, advertising, or to changes in prices, and then describing a typical member of each segment by his or her demographic attributes, this study provides the type of information managers

Application No.: 09/833,638  
Response to OA of 06/15/05

need to reach buyers of their produce much more efficiently.

(Richards: Para. 5).

Richards, thus, constructs segments that group consumers with similar responses to marketing variables (see Para. 15). Richards, however, does not teach or suggest further separating these groups into meta-segments, wherein each meta-segment represents a second group of customers sharing a same response to all promotions.

The Office Action cites Richards at Para. 28 and table 4 for teaching these limitations. Applicants respectfully disagree. This section of Richards merely teaches that consumers can be grouped into different segments based on different factors, such as response elasticities and demographics. Richards explains:

Consider first the results obtained by segmenting the market for Red Delicious apples. Because apple marketers want to link households of similar behavior to those of similar identifiable attributes, such as age, education, or income level, we segment on the basis of both response elasticities and a group of demographic values. (Richards: Para. 28).

Thus, Richards teaches that segmenting is based on both response elasticities and demographics. Notice though, that Richards does not teach or suggest segmenting first groups of customers and then separating these groups into meta-segments, wherein each meta-segment represents a second group of customers sharing a same response to all promotions.

Applicants argue that Cohen does not cure the deficiencies of Richards. Cohen is directed to latent segmentation models (LSMs). Cohen explains the use of LSMs:

Basically, we assume that the data contain several homogeneous groups or segments that have been mixed together in unknown proportions. We don't know beforehand who belongs to which segment or how many segments there are – the segments are latent

Application No.: 09/853,658  
Response to OA of 06/15/05

or unobserved – so we must unmix the data to reveal their true number and definition. (Cohen: Para. 1).

Cohen teaches that LSMs help to identify the size and composition of unknown market segments (Cohen: Para. 7). Cohen does not teach or suggest separating segmented groups into meta-segments wherein each meta-segment represents a second group of customers sharing a same response to all promotions. By contrast, Cohen is concerned with un-mixing data to determine who belongs to which segment.

For at least these reasons, claim 1 is allowable over the combination of Richards and Cohen. A dependent claim inherits the limitations of a base claim. Thus, for at least the reasons given in connection with claim 1, the dependent claims are also allowable over Richards in view of Cohen.

#### **Claims 7 and 13**

Independent claims 7 and 13 recite numerous limitations that are not taught or suggested in Richards in view of Cohen. For example, claim 7 recites “wherein said meta-segment represents a second respective group of customers having a **common response to all promotions** in said plurality of promotions” (emphasis added). Further, claim 13 recites “each meta-segment in said plurality of meta-segments represents a respective group of customers **sharing a common response to all promotions** in said plurality of promotions” (emphasis added). As noted above in connection with claim 1, Richards and Cohen do not teach or suggest such limitations.

For at least these reasons, claims 7 and 13 are allowable over the combination of Richards and Cohen. A dependent claim inherits the limitations of a base claim. Thus, for at least the reasons given in connection with claims 7 and 13, the dependent claims are also allowable over Richards in view of Cohen.

#### **No Reasonable Expectation of Success**

No reasonable expectation of success has been established for modifying Richards with the teachings of Cohen to arrive at the recitations of the claims. In other words, even

Application No.: 09/853,638  
Response to OA of 06/15/05

assuming *arguendo* that Richards and Cohen are combinable (which they are not), the combination will not yield a reasonable expectation of success.

Richards expressly teaches segmenting customers based on their response to promotions. By contrast, Cohen teaches un-mixing segments to determine who belongs to which segment or how many segments exist. Thus, the modification of Richards with Cohen would not yield, for example, a method of separating segmented groups into meta-segments wherein each meta-segment represents a second group of customers sharing a same response to all promotions.

In view of these deficiencies, the Office Action has failed to establish a reasonable expectation of success with a combination or modification of Richards and Cohen. Therefore, the *prima facie* case of obviousness has not been established.

Application No.: 09/853,658  
Response to OA of 06/15/05

RECEIVED  
CENTRAL FAX CENTER

SEP 09 2005

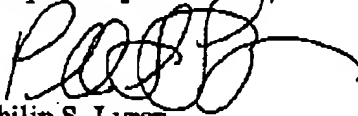
**CONCLUSION**

In view of the above, Applicants believe that all pending claims are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. (281) 514-8236, Facsimile No. (281) 514-8332. In addition, all correspondence should continue to be directed to the following address:

**Hewlett-Packard Company**  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400

Respectfully submitted,



Philip S. Lyren  
Reg. No. 40,709  
Ph: 281-514-8236

**CERTIFICATE UNDER 37 C.F.R. 1.8**

The undersigned hereby certifies that this paper or papers, as described herein, is being transmitted to the United States Patent and Trademark Office facsimile number 571-273-8300 on this 9 day of September, 2005.

By   
Name: Carrie McKerley